

appellants' claims. In re Green-
2d 1185; 1189, 197 USPQ 227,
1978).⁹ Appellants claim broad
nents; but the weight percent of
he four examples of the claimed
relatively minor amounts. For
entire claimed range of carbon
but the tested range is only .02
5); the claimed cobalt range is
est range is only 1.3. There is
showing whether other alloys
by appellants' broad claims
lements varying by relatively
s also exhibit a low creep rate.

B. Ductility Test

Table VI, set forth in their
n, compares the room
ductility of one heat of the
(2-1426) and one heat of an
which appellants state has
within those of the references.

Elong. (%)	R.A. (%)	Nv Value
16.9	15.0	2.27
16.1	14.1	2.27
14.0	13.7	2.52
5.0	5.5	2.52

can be manufactured in a
remain free from a tenden-
e-like sigma phase." The
of the present invention
the average number of elec-
at a value not exceeding
ereas the Pauling theory
w N_v value means reduced
phase, appellants allege
ng their composition and
ments are free from sigma

earlier, the Boesch af-
sigma phase is present in

⁹ to decide whether 6-3211 is
See In re Malagari, 499 F.2d
USPQ 549, 552-53 (CCPA

seven alloy examples, all of which meet the
composition requirements but exceed the
N_v value requirement of the claimed alloys.
However, this affidavit contains no ex-
amples of claimed alloys showing the
absence, or presence, of sigma. The
remainder of the record reveals only a single
example of the claimed alloy, which shows
the absence of sigma.¹⁰ Appellants'
specification includes a photomicrograph of
Table V alloy heat 2-1422, which clearly
shows the absence of sigma; also, a
photomicrograph of Table V alloy heat
6-3211, which shows the presence of sigma.
We note again that the prior art teaches that
reduction of the N_v value reduces the chances of
sigma phase in the alloy. Here appellants
tested only one example of a low N_v value
alloy and found no sigma — a result consist-
ent with both the prior art teaching and
appellants' allegation that their claimed
alloys are "totally free from sigma phase."¹¹
Under such circumstances, test results in-
volving a single alloy within the broad range
claimed are not sufficient to support
appellants' allegation of what would, from
the prior art, be unexpected.¹²

In view of the foregoing we hold that
appellants have failed to rebut the prima
facie case of obviousness.

The decision of the board is affirmed.
Affirmed.

¹⁰ Thus, appellants have again failed to show
test data commensurate in scope with the broad
claims.

¹¹ We agree with the board that the six United
States patents ((1) No. 4,093,474, issued June 6,
1978; (2) No. 4,083,734, issued April 11, 1978; (3)
No. 3,930,904, issued January 6, 1976; (4) No.
3,837,838, issued September 24, 1974; (5) No.
3,816,110, issued June 11, 1974; and (6) No.
3,767,385, issued October 23, 1973) introduced
into the record by appellants "do support the
assertion in the Boesch affidavit that 'any amount
of sigma phase' is undesirable." Therefore, we
have limited our analysis to the issue of the ex-
istence of sigma phase and have not extended it to
include the effect of varying amounts of sigma
phase.

¹² Where it is alleged that a certain technique
for flipping coins would always produce "heads,"
one would hardly be persuaded by a single toss of
a coin which resulted in a showing of "heads."

Court of Customs and Patent Appeals

In re Breslow

No. 79-602

Decided Feb. 28, 1980

PATENTS

1. Patent grant — In general (§50.01)

**Patent grant — Nature of patent rights
— In general (§50.201)**

Government grants only right to exclude;
there is no other agreement; analogy of a pa-
tent to a contract on theory that it is issued
in exchange for invention's disclosure, "con-
sideration," is inexact; patent is statutory
right; it is granted to "Whoever" fulfills con-
ditions, Section 101, unless fraud has been
committed.

**2. Court of Customs and Patent Appeals
— Issues determined — Ex parte pa-
tent cases (§28.203)**

Question of whether claimed compounds
"are even formed" on which point Board of
Appeals disagreed with examiner who
argued that there was no indication nor
proof on this point and board expressly held
to contrary is not before Court of Customs
and Patent Appeals.

**3. Patentability — Subject matter for pa-
tent monopoly — In general
(§51.601)**

Ex parte Howard, 328 O.G. 251, 1924
C.D. 75, dealt with construction of
"manufacture" rather than "composition of
matter," with gob, of at least obvious, molten
glass in transitory state rather than with
novel chemical compounds, and with
mechanical molding process in which it was
well known to use molten gob of glass as dis-
tinguished from novel chemical process us-
ing entirely new and unobvious group of
chemical compounds.

**4. Patentability — New use or function
— Composition of matter (§51.555)**

**Patentability — Subject matter for pa-
tent monopoly — In general
(§51.601)**

In re Stubbs, 13 USPQ 358, did not deal
with issue of whether claimed compounds
are excluded from category of "composition
of matter" in Section 101 merely because
they are transitory, unstable, and non-
isolatable.

**5. Patentability — New use or function
— Composition of matter (§51.555)**

Patentability — Subject matter for patent monopoly — In general (§51.601)

Patentability — Utility (§51.75)

Requirement that compositions of matter be stable is not read into Section 101; many compounds may find their greatest or even their sole utility in fact that they are not stable.

6. Patentability — Utility (§51.75)

Specification — Sufficiency of disclosure (§62.7)

Artisan need not literally be in possession of claimed compounds in sense of holding them for time in his hands in "reasonable stable" form; utility only for cross-linking and only when produced in situ is sufficient utility for patentability.

7. Applications for patent — In general (§15.1)

Patentability — New use or function — Composition of matter (§51.555)

Patentability — Subject matter for patent monopoly — In general (§51.601)

Pleading and practice in Patent Office — In general (§54.1)

35 U.S.C. 114 authorizes Commissioner, if he so desires, to require models, specimens, and ingredients; argument that Congress, by authorizing Commissioner to require samples of composition, must have intended that composition of matter qualifying as patentable subject matter be something more than composition of matter that is unstable and incapable of being isolated is meritless; Section 114 was never intended to impose any limitations on scope of Section 101 and there is no reason why it should; Act of 1870 made submission of models and specimens discretionary with Commissioner, and rule that models were required by Patent Office was dispensed with in 1880.

8. Applications for patent — In general (§15.1)

Commissioner of Patents — In general (§21.01)

Patentability — New use or function — Composition of matter (§51.555)

Patentability — Subject matter for patent monopoly — In general (§51.601)

Pleading and practice in Patent Office — In general (§54.1)

Section 114 is merely continuation of ancient authority vested in Commissioner to require model, specimen, or ingredient in rare case in which he sees fit to do so; authorization to request specimen in application for composition of matter bears same relation to such application as request for model does to application for patent on mechanical device; Patent Act of 1952 merely preserved authority in its then existing form for what it was worth; Congress intended broad construction of Section 101; claimed nitrile imines can as well be considered "manufactures" as "composition of matter."

Particular patents — Nitrile Imines

Breslow, Nitrile Imines, rejection of claims 2, 3, and 8 reversed.

Appeal from Patent and Trademark Office Board of Appeals.

Application for patent of David S. Breslow, Serial No. 646,309, filed Jan. 2, 1976, continuation of application Serial No. 453,664, filed Mar. 21, 1974, continuation in part of application, Serial No. 720,430, filed Feb. 2, 1968, division of application, Serial No. 447,887, filed Apr. 13, 1965, now U.S. Patent No. 3,418,285. From decision rejecting claims 2, 3, and 8, applicant appeals. Reversed; Baldwin, Judge, concurring with opinion.

Marion C. Staves, Kennett Square, Pa., for appellant.

Joseph F. Nakamura (Fred E. McKelvey and Gerald H. Borge, of counsel) for Commissioner of Patents and Trademarks.

Before Markey, Chief Judge, Rich, Baldwin, and Miller, Associate Judges, and Maletz,* Judge.

Rich, Judge.

This appeal is from the decision of the United States Patent and Trademark Office (PTO) Board of Appeals (board) affirming the rejections of claims 2, 3, and 8 in appellant's application, serial No. 646,309.¹

*The Honorable Herbert N. Maletz, Judge, United States Customs Court, sitting by designation.

¹The present application is a continuation of serial No. 453,664, filed March 21, 1974, which was a continuation in part of serial No. 720,430,

filed January 2, 1976, for "Nitrile Imines," under 35 USC 101 for failure to define a statutory class of invention and also under 35 USC 112, first paragraph, for not disclosing how to prepare and isolate the claimed compounds. We reverse.

The Invention

The new compounds claimed herein, polyfunctional nitrile imines, are one aspect of a broader invention which is described in U.S. Patent No. 3,418,285, which issued on a parent application, as follows: "This invention relates to new cross-linking agents, to cross-linking unsaturated polymers therewith, and to the crosslinked products so produced." The instant application explains that generally any type of unsaturated polymer, containing ethylenic unsaturation wherein there is at least one hydrogen radical attached to at least one of the carbon atoms of the double bond, can be cross-linked with the polyfunctional nitrile imines and that the resulting cross-linked polymers are hard, tough rubbers, substantially insoluble in water and hydrocarbon solvents with improved tensile properties useful in various rubber applications.

The following quotations from appellant's specification are particularly relevant to the issue before us:

The polyfunctional nitrile imines of this invention are relatively unstable compounds, and the primary modes of cross-linking unsaturated polymers with these imines involves their formation in situ in a polymer mass from their closely related but more stable hydrogen chloride salts * * * usually accomplished by contacting the hydrazide chloride with an alkaline material. * * *

* * *

The cross-linking is carried out by contacting the unsaturated polymer and a minor amount of the polyfunctional nitrile imine cross-linking agent for a time sufficient for the desired degree of cross-linking to occur. This uniform contacting is preferably achieved by uniformly mixing the polymer and the hydrogen chloride salt of the polyfunctional nitrile imine, and treating that mixture with an alkaline material, thereby generating the nitrile imine in situ in the polymer mass.

filed February 2, 1968, which in turn is a division of serial No. 447,887, filed April 13, 1965, now U.S. Patent No. 3,418,285. Effective filing date is not an issue.

* * *

The uniform mixing * * * can be carried out by milling these ingredients on a conventional rubber mill, by dissolving the hydrogen chloride salt or the tetrazole precursor in a solvent solution of the polymer, or by any of other numerous methods, which will be readily apparent to those skilled in the art. This uniform contacting will result in the nitrile imine cross-linking agent being uniformly distributed throughout the polymer mass upon its in situ generation, so that uniform cross-linking can be achieved.

Thus, the claimed compounds are simultaneously generated and put to use. The three product claims on appeal are in Markush form, covering a large number of nitrile imines, the novelty, utility, and obviousness of which have not been questioned. In view of the nature of the rejections, it will not be necessary to consider the claims in detail and quoting them would serve no useful purpose.

The Rejection

[1] The examiner relied on no prior art references. He held, first, that the claimed compounds do not fall within any statutory category of invention named in 35 USC 101.² For support, he relied on three admissions which appeared in the file of the parent application (serial No. 453,664), as follows: (1) "It is true that the compounds are transitory intermediates"; (2) "they are so reactive that they will react with each other if there is no other coreactant available"; and (3) "it is also true that applicant has not isolated the compounds." On the basis of these admissions, the examiner said in his Answer:

A "transitory intermediate" is not a composition of matter provided for under the normal interpretation of this statute.

* * *

* * *

* * * as noted above (and below) this is a situation where a "transitory" intermediate, which would not and could not be readily isolated, is being claimed and one of ordinary skill in the art is not

² § 102. *Inventions patentable*

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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presented with an enabling disclosure (for more on "enablement" see below) for attaining this compounds, [sic] per se, claimed at bar.

Decisions: While no direct precedential decisions have been found that are specifically in point on this 35 U.S.C. 101 issue the following decisions might be of interest: Ex parte Howard, 1924 C.D. 75 (item No. 1 on page 76) and In re Stubbs, 1932 C.D. 466 (item No. 1 on page 467).

The examiner then made a second rejection of the appealed claims under 35 USC 112, first paragraph, saying:

The first paragraph is pertinent as this disclosure provides no "enabling" data to teach one of ordinary skill in the art how to prepare and isolate the compounds, per se, presently being claimed. Derivatives yes, but actual isolatable compounds, no.

Put another way, it is clear that as appellant is claiming specific compounds it is appellant's duty (to fulfill the patent contract granted by the government of the United States)³ to give sufficient teachings to enable one of ordinary skill in the art to produce (or reproduce) and isolate such claimed compounds, per se, not derivatives thereof. As urged by the Examiner, supra, appellant has not done so. If it would be obvious to the ordinary skill in the art how to isolate such claimed compounds then no problem exists as such would be patentable * * * but herein no such enablement is proffered nor is (are) any reference(s) cited to prove such isolation would be within the ordinary skill of the art. [Emphasis ours.]

[2] Another argument made by the examiner was that there was no indication, and certainly no proof, that the claimed compounds "are even formed." The board disagreed with him on this point and expressly held to the contrary, so that question is not before us. The board held that, on the evidence produced by appellant, it is "reasonable to assume that the claimed compounds, in fact, are formed and do exist

³ The examiner's notion about the United States granting a contract is inapt. The Government grants only a right to exclude. There is no other agreement. While a patent has often been likened to a contract on the theory that it is issued in exchange for the disclosure of the invention (the "consideration"), the analogy is inexact. A patent is a statutory right. It is granted to "Whoever" fulfills the conditions, §101, note 2 supra, unless fraud has been committed.

in the system disclosed by appellant in which they are specifically and explicitly taught to be produced." Having so held, the board's opinion continues as follows:

But we are, nevertheless, constrained to affirm the Examiner's rejection of the instant claims. An interesting legal question is presented by this case for which, as noted by the Examiner, no direct precedential decisions appear to exist. However, similar factual situations prevailed in Ex parte Howard, 1924 CD 75, wherein a free-falling drop or gob of molten glass which exists only while falling to the mold was claimed, and in In re Stubbs, 58 F.2d 447, 423 OG 6, 1932 CD 466, where the subject matter at issue was a paving for streets comprised of a party-cured concrete. In both of these cases the deciding tribunals [in Howard, Assistant Commissioner of Patents Fenning and in Stubbs this court] held that the claimed products did not fall within one of the statutory classes which may be patented inasmuch as they were transitory and ephemeral in nature. Similarly here, the claimed compounds are transitory intermediates which appellant has not been able to isolate and which apparently are not capable of existence, as such, in isolated form. See Paper No. 5, page 3 of the parent file, Serial No. 453,664, pertinent portions of which have been reproduced by the Examiner in his Answer. Accordingly, we believe that the claimed compounds which admittedly exist only as transitory intermediates are not within the scope of the four categories of inventions or discoveries set forth in 35 USC 101 which may be patented.

Further, we interpret the enablement clause of the first paragraph of 35 USC 112 as requiring that the claimed invention, i.e. the claimed compounds per se which constitute the invention at issue, must be taught in a manner such that the artisan will be in possession of the claimed invention. Appellant, however, does not disclose how this may be achieved nor, in fact, does he even assert that such may necessarily be possible. He only postulates that using very sophisticated techniques someone may one day possibly isolate and analyze the instant compounds. It is urged by him that investigations of this nature are unnecessary for the purpose of this invention.

We disagree. The invention at bar, as defined by the appealed claims, is the compounds, per se, and as long as appellant has failed to give directions to

one skilled in the art w into possession of the ed, he has not satisfi clause of 35 USC 112 that we believe appell art-skilled how to is compounds in pure believe that appellant obtain the compound stable form. [Emphasi

The I

From the foregoing it board affirmed two disti tion: (1) lack of statutor der §101 and (2) lack closure in the specificati matter has here been however, by the PTO sc this court. At the end o

It is the Commissi §112 rejection stand §101 rejection. If isolatable, transite claimed in claims 2, by the Court to be matter" within the m appellant has at least the unstable, non-is compounds in situ. what more would be circumstances. The course, believes the prevail on the basis o

Thus, the two issues reduced to one: Are pounds, which the bo fact do exist and can be to the description of a tion, excluded from th position of matter" in § transitory, unstable, a what the board called form"? Stated another a new and useful comp made at will for its int as a cross-linking age sidered as a "composit §101?

Opir

The examiner and 1 and the solicitor app the question raised by first impression and tl law.

The PTO brief is d excluding appellant §101. It merely says ti ed, because they are un

one skilled in the art which would put him into possession of the invention so claimed, he has not satisfied the enablement clause of 35 USC 112. This is not to say that we believe appellant must teach the art-skilled how to isolate the claimed compounds in *pure* form; but we do believe that appellant must enable one to obtain the compounds in a reasonably *stable* form. [Emphasis in original.]

The Issue

From the foregoing it is apparent that the board affirmed two distinct grounds of rejection: (1) lack of statutory subject matter under §101 and (2) lack of an enabling disclosure in the specification under §112. The matter has here been further simplified, however, by the PTO solicitor in his brief in this court. At the end of his brief he says:

It is the Commissioner's view that the §112 rejection stands or falls with the §101 rejection. If the unstable, non-isolatable, transitory intermediates claimed in claims 2, 3, and 8 are deemed by the Court to be a "composition of matter" within the meaning of §101, then appellant has at least taught how to make the unstable, non-isolatable, transitory compounds *in situ*. It is not apparent what more would be required under the circumstances. The Commissioner, of course, believes the ruling below should prevail on the basis of the §101 rejection.

Thus, the two issues have effectively been reduced to one: Are the claimed compounds, which the board has admitted in fact do exist and can be produced according to the description of appellant's specification, excluded from the category of "composition of matter" in §101 because they are transitory, unstable, and non-isolatable in what the board called "a reasonably *stable* form"? Stated another way, how long must a new and useful compound, which can be made at will for its intended purpose, here as a cross-linking agent, exist to be considered as a "composition of matter" under §101?

Opinion

The examiner and the board recognized, and the solicitor appears to concede, that the question raised by this appeal is one of first impression and that it is a question of law.

The PTO brief is devoid of any *reason* for excluding appellant's compounds from §101: It merely says they should be excluded *because* they are unstable and cannot be

isolated, but that simply begs the question. It is said that denying appellant the appealed claims would not *undermine* in any way the public policy behind the patent system. But neither would it support it.

Although the PTO clearly felt, as we feel, that there is no prior decision on facts the same as those here, we will briefly discuss the two cases which were cited and apparently relied on below. The board said of them:

In both of these cases the deciding tribunals held that the claimed products did not fall within one of the statutory classes which may be patented inasmuch as they were transitory and ephemeral in nature.

Ex parte Howard, 328 O.G. 251, 1924 C.D. 75 (Ass't. Comm'r. 1922), was decided in the days when a decision of the board of Examiners-in-Chief (now the Board of Appeals) could be appealed to the Commissioner of Patents in person under §47 of the Patent Act of 1870, R.S. 4910 (repealed by §6 of Pub. L. 690, 69th Cong., Mar. 2, 1927, 44 Stat. 1326). It was also then settled that the decision of such appeals to the Commissioner in person could be delegated to the Assistant Commissioner. Hence, we had in this case a decision by Assistant Commissioner Fenning. The first part of his opinion dealt with a claim rejected on prior art and has no bearing here. The second part dealt with a refusal by the Examiners-in-Chief to admit a new claim directed to "a freely-falling drop or gob of glass" of specified characteristics which was created in the course of a process of glass molding, the molten gob falling into the mold to be shaped into an article before it cools. The issue presented was whether the gob was a "manufacture" under R.S. 4886, predecessor statute to §101. Assistant Commissioner Fenning held the claimed hot gob was not a "manufacture" for the following reasons:

I am of the opinion that it is the finished product that the patent statutes are designed to protect as "manufactures" and not something which is produced at a particular stage of the manufacturing process and which is evanescent and adapted for use only in so far as it may enter into and be modified by subsequent steps of a method for producing a complete article.

* * *

* * * the drop of glass claimed is in its temporary condition while being transformed into something else. The

"manufacture" is not yet made, the process of manufacturing is still incomplete.

That is one man's opinion on the application of the statutory term "manufacture" to one set of facts. However, the Commissioner had another reason for refusing to admit the new claim. He noted that the principal difference between the applicant's gob and those disclosed by the prior art lay only in its shape, "the idea being to shape the charge to fit the mold." And that difference, he said, was "merely one of degree." He also took note of a photograph filed with the brief which, he said, seemed to show that applicant's gob was of an old shape and not that of the claim, wherefore "applicant's argument is from theory and not from practice."

[3] Ex parte Howard is distinguishable, therefore, on the grounds that it dealt with the construction of "manufacture" rather than "composition of matter," with a gob of apparently old, or at least obvious, molten glass in a transitory state rather than with novel chemical compounds, and with a mechanical molding process in which it was well known to use a molten gob of glass as distinguished from a novel chemical process using an entirely new and unobvious group of chemical compounds. While certain analogies can be drawn from the reasoning used, we do not regard the Assistant Commissioner's reasoning as persuasive on the facts before us.

[4] In re Stubbs, 19 CCPA 1216, 58 F.2d 447, 13 USPQ 358 (1932), involved a process for making concrete paving. The affirmation of the rejection of four claims was appealed to this court. All were rejected on prior art. The rejection of two process claims was reversed by this court. The other two claims were directed to paving and are typified by claim 1 reading:

1. Paving for streets, roads, and the like comprising a slab of cut-surface *partly cured concrete*, a coating of bituminous material laid on said cut surface and partly embedded therein, and a coating of sand adhering to the bituminous material. [Emphasis ours.]

The examiner had rejected claims 1 and 2 because they relied on a method step. The board disagreed with the examiner on that ground but held those claims were "primarily improper because as drawn they appear to claim a product in its transitory stage instead of in its final form. The finished product includes concrete which is completely cured and not partly cured." The

product, of course was paving. This court, in a single paragraph reiterating the facts, completely agreed with the board, citing no statute or other authority or any other reason in addition to what the board was quoted as saying. Apparently the court felt that a claim to *paving*, to accurately describe the invention, should not refer to *uncured* concrete because the finished product does not contain it. But even that is surmise. The significant fact here is that this court made no reference whatever to the predecessor statute of §101, nor to any statute or precedent. Nor did it even refer to the question of what subject matter may be patented. Stubbs is totally lacking in precedential value. It simply did not deal with the issue now before us.

Wholly unlike the product claim in Stubbs, which attempted to claim paving consisting of a combination of elements, the claims here are not directed to combinations but to new chemical compounds. In essence, the objection of the PTO is that the compounds, being unstable, cannot be isolated and lays down as a prerequisite to being "statutory subject matter" that "appellant must enable one to obtain the compounds in a reasonably *stable* form." That is to say, unstable compounds are not "compositions of matter" under §101, at least when they are sufficiently unstable, notwithstanding it can be determined that they in fact do exist, that they are useful cross-linking agents, and that they can be produced at will, following appellant's specification, and used for their intended purpose.

[5] It appears to us that the PTO would read into §101 a requirement that compositions of matter must be stable — which is a relative term to say the least. We see no good reason to do so. It would appear that many compounds may find their greatest or even their sole utility in the fact that they are not stable. Certainly, in the invention at bar there is no reason to have the claimed compounds in a stable form so they can be bottled or tanked or otherwise stored. The preferred manner of using them is to produce them in situ, whereupon they exhibit their cross-linking activity, their only disclosed utility.

[6] In discussing the §112 aspect of the rejection, which the solicitor has so helpfully eliminated from consideration, the board expressed concern about putting the artisan in possession of the claimed invention, and rightly so. But it seems to us that the board concentrated unduly on the word "claimed" and was too literal about the need for the artisan to be in possession of the claimed com-

pounds in the time in his form. Assuming compounds and only which would be sufficient — those skill possession of just as complete possession of process and now patented

[7] The subject presents a new examiner or could be construed pounds incapable contention is authorizes the desires, to re ingredients, says:

It is reading the Court of a composition have intention matter quality matter be position of incapable o

We see no, m considering the or do not believe impose any lin or that there For the origin to §3 of the Pat ed as part "drawings and nature" of the * * * specimen the composition quantity for where the inv matter added and model of his in mit of a repres venient size several parts like modern ch when the Pa museum of specimen stor aggravated by 1870. Commit floor to dispens absolutely free law by making and specimen

pounds in the sense of holding them for a time in his hands in a "reasonable stable" form. Assuming, arguendo, that the claimed compounds are useful only for cross-linking and only when produced in situ — which would be sufficient utility for patentability — those skilled in the art have been put in possession of them by appellant's disclosure just as completely as they have been put in possession of appellant's invention in its process and cross-linked product aspects, now patented.

[7] The solicitor's brief in this court presents a new argument, not made by the examiner or board, as to why §101 should be construed to exclude unstable compounds incapable of being isolated. The contention is that 35 USC 114, which authorizes the Commissioner, if he so desires, to require models, specimens, and ingredients, compels that conclusion. He says:

It is readily apparent that by authorizing the Commissioner to require samples of a composition of matter, Congress must have intended that a composition of matter qualifying as patentable subject matter be something more than a composition of matter which is unstable and incapable of being isolated.

We see no merit in that argument. Considering the origins and history of §114, we do not believe that it was ever intended to impose any limitations on the scope of §101 or that there is any reason why it should. For the origins of §114 one must hark back to §3 of the Patent Act of 1793 which included as part of the patent application "drawings and written references, where the nature of the case admits of drawings, or * * * specimens of the ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention is of a composition of matter; * * *." Section 6 of the 1836 Act added: "and he shall moreover furnish a model of his invention, in all cases which admit of a representation by a model, of a convenient size to exhibit advantageously its several parts." That was before anything like modern chemistry had evolved in a time when the Patent Office was largely a museum of technology. Model and specimen storage and exhibition became an aggravated problem for the Office and in 1870 Commissioner Fisher's recommendation to dispense with all models except when absolutely necessary was written into the law by making the submission of models and specimens discretionary with the Com-

missioner. Act of 1870, §§28, 29, R.S.4890, 4891 (1874). See Outline History of the Patent Office, 18 JPOS 116, 138, 168, 175 (July 1936). Although models were required by Patent Office rule for a few more years, that rule was finally dispensed with in 1880. *Id.* at 137.

[8] Section 114¹ of the present statute is merely a continuation of the ancient authority vested in the Commissioner to require a model, specimen, or ingredient in the rare case in which he sees fit to do so. This authority is almost never used, E. Stringham, Patent Soliciting and Examining §§1, 54 (1934), and this has been so for a very long time. The authorization to request a specimen in an application for a composition of matter bears the same relation to such an application as a request for a model does to an application for a patent on a mechanical device. A. McCrady, Patent Office Practice §105 (4th ed. 1959). The Patent Act of 1952 merely preserved the authority in its then existing form for what it was worth. The solicitor has cited nothing to indicate that anyone has ever at any time regarded §114 as having any bearing on the construction of §101. It will be noted that Congress in the House report No. 1923, 82nd Cong., 2d Sess., on H.R. 7794, the bill which became the 1952 Patent Act, under the heading "General Description of Bill," found §114 of so little interest that it was not even mentioned. (See p. 7 of the report.) The Senate report is identical in this respect. On the other hand, those same reports clearly indicate that a broad construction of §101 was intended by Congress. Surely, appellant has made his nitrile imines, used them, and taught others how to do so. They can as well be considered "manufactures" as "composition of matter."

Having considered the case of first impression which this appeal presents and the arguments pro and con, we find the rejection of claims 2, 3, and 8 to be without support in law and the decision of the board is reversed.

Reversed.

¹ §114. *Models, specimens*

The Commissioner may require the applicant to furnish a model of convenient size to exhibit advantageously the several parts of his invention.

When the invention relates to a composition of matter, the Commissioner may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment.